Autonomous Air Traffic Reporting and Operations for UAS, Phase I Project

SBIR/STTR Programs | Space Technology Mission Directorate (STMD)

ABSTRACT

A hardware/software solution for autonomous reporting of flight operations of a UAS is proposed. Such a system would enable the UAS to report identity, position, and other information to local human and autonomous traffic and air traffic controllers in an autonomous manner, in legacy terminology. This will improve the overall safety of UAS operations, and lead to easier integration of UASs into the national airspace system. In Phase I, the hardware will be developed and flight tested on a manned platform. In Phase II, refinements to the design will be implemented, and the system will be readied for production.

ANTICIPATED BENEFITS

To NASA funded missions:

Potential NASA Commercial Applications: Improved safety for UAS integration into the national airspace, improved human/machine integration.

To the commercial space industry:

Potential Non-NASA Commercial Applications: Such a system can also be used for military air traffic scenarios involving manned and unmanned traffic, civilian autonomous traffic, etc.

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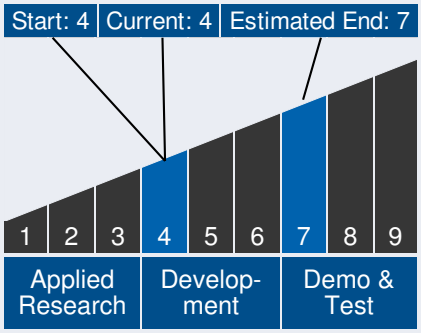
Technology Maturity



Management Team

Program Executives:

- Joseph Grant
- Laguduva Kubendran

Program Manager:

- Carlos Torrez

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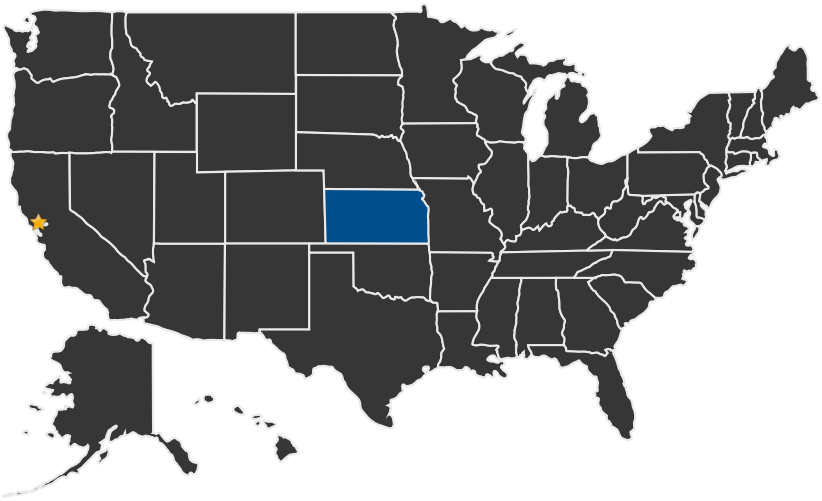
U.S. WORK LOCATIONS AND KEY PARTNERS



U.S. States With Work

Lead Center:
Ames Research Center

Other Organizations Performing Work:

- KALSCOTT Engineering, Inc. (Lawrence, KS)

PROJECT LIBRARY

Presentations

- Briefing Chart
  - (http://techport.nasa.gov:80/file/23245)

Management Team *(cont.)*

Principal Investigator:

- Thomas Sherwood

Autonomous Air Traffic Reporting and Operations for UAS, Phase I Project

IMAGE GALLERY

Autonomous Air Traffic Reporting and Operations for UAS, Phase I

DETAILS FOR TECHNOLOGY 1

Technology Title

Autonomous Air Traffic Reporting and Operations for UAS, Phase I

Potential Applications

Improved safety for UAS integration into the national airspace, improved human/machine integration.